

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

PUBLIC UTILITIES COMMISSION

In re Review of Bell Atlantic's TELRIC Studies.

Docket No. 2681

Implementation of the Requirements of the Federal
Communications Commission's Triennial Review Order

Docket No. 3550

REBUTTAL TESTIMONY OF WILLIAM SALVATORE

ON BEHALF OF AT&T COMMUNICATIONS OF NEW ENGLAND, INC.

PUBLIC VERSION

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**SUMMARY OF PROFESSIONAL EXPERTISE AND TELECOMMUNICATIONS
INDUSTRY EXPERIENCE**

Q. Please state your name, professional affiliation, and business address.

A. My name is William D. Salvatore and my office is located at 64-15 79 Street, New York, New York. I hold the position of District Manager - Regulatory Affairs for AT&T. I am responsible for costing and other regulatory matters relating to AT&T's local market entry as part of a National Cost Team.

Q. Please describe your educational background and business experience in the telecommunications industry.

A. I received a BA in Political Science from Queens College C.U.N.Y. in 1973. While working for AT&T, I obtained an MBA in Corporate Finance from Pace University in 1981. I was employed by AT&T Long Lines in 1980 and worked in the Engineering Department where I was responsible for conducting cost studies used to report the investment base to the Federal Communication Commission ("FCC"). This was followed by assignments of increasing responsibility in a number of disciplines including: cost studies, budgeting, financial analysis, access management and interconnection arrangements. In 1996 I represented AT&T in negotiations and arbitrations pursuant to the 1996 Telecommunications Act in New York and several New England states. I assumed my current position as a member of the National Cost Team in 2001. In addition, I currently hold the position of Chairperson of the Advisory Board to the New York State Universal Service Targeted Assistance Fund ("TAF").

Q. Have you testified before public utilities commissions regarding telecommunications issues?

A. Yes. I have submitted testimony on behalf of AT&T: (i) in New York regarding the economic impact of Verizon's proposed hot cut rates (Case 02-C-1425), Universal Service/Access Reform (Cases 94-C-0095 and 28425), 1+ intraLATA Presubscription (Case

28425), and AT&T's Symmetric Regulation Petition (Case 94-C-0017); (ii) in Massachusetts regarding the economic impact of Verizon's proposed hot cut rates (Docket DTE 03-60), in the most recent UNE cost case (Docket DTE 01-20), the Price Floor Docket (Docket DPU 94-185), the Verizon 271 Proceeding (Docket DTE 99-271), and the Line Sharing Docket (Docket DTE 98-57-Phase I); (iii) in Connecticut concerning SNET's Restructure Proposal (Case 94-10-05), the Investigation into the Pricing of Unbundled Network Elements (Case 96-09-22), the Investigation into SNET's Cost Studies For Other Unbundled Network Elements (Case 97-04-10), the Investigation into Recurring Costs for UNEs (Case 00-01-02), the Unbundled Loop, Port and Interconnection Docket (Case 95-06-17), Status of Competition Investigation (Case 91-12-19), IntraLATA Presubscription Docket (Case 94-02-07), Unbundling Docket (Case 94-10-02) and Cost of Service Docket (Case 94-10-01); (iv) in Rhode Island in the Access Charge proceeding (Docket 1995) and Unbundled Network Elements Docket (Docket 2681); (v) in New Hampshire concerning Bell Atlantic's Special Contract Price Floor proceeding (Case 99-018), NYNEX's Price Cap Proposal (Case 89-010) and Competition Docket (Case 90-002); (vi) in Vermont concerning Bell Atlantic's Special Contract Imputation proceeding (Case 6077), Incentive Regulation proceeding (Case 5700/5702) and the Competition Docket (Case 5713); (vii) in the Georgia UNE cost case (Case 14361-U); (viii) in New Jersey regarding the economic impact of Verizon's proposed hot cut rates (BPU Docket No. TO03009705); and (ix) in Maryland regarding the economic impact of Verizon's proposed hot cut rates (PSC Docket No. 8988).

II. INTRODUCTION, PURPOSE, AND STRUCTURE OF THE TESTIMONY

Q. What is the purpose of your testimony?

A. On December 8, 2003, Verizon submitted its Initial Panel Testimony in this case. As part of this testimony, Verizon introduced for the first time in this proceeding a new hot cut process

1 that it called a “batch” hot cut process, which Verizon distinguished from its “basic” and
2 “Large Job” hot cut processes. Verizon proposed separate rates, terms and conditions for
3 each of these processes.

4 In its testimony, Verizon claims that “the hot cut processes that Verizon currently
5 offers or will shortly begin offering provide CLECs with a range of effective and efficient
6 options that utilize current technology and comply with Verizon’s obligations under the
7 FCC’s *Triennial Review Order*.”¹ Verizon’s obligation under the FCC’s Triennial Review
8 Order (the “TRO”) is to develop and provide a “seamless, low cost process for transferring
9 large volumes of mass market customers.”² The purpose of my testimony is to respond to
10 and refute Verizon’s assertion that its hot cut processes satisfy these obligations.

11 **Q. Please summarize your main conclusions with regard to Verizon’s claim that it has**
12 **solved the hot cut problem.**

13 A. Verizon’s proposals do not remotely satisfy the TRO’s requirement for a seamless, low-cost
14 hot cut process for a variety of reasons. Among them, however, is that they would impose
15 prohibitively high costs on competitive local exchange carriers (“CLECs”) in Rhode Island.
16 CLECs would be unable to profitably serve the mass market if they had to pay the charges
17 proposed by Verizon for completing hot cuts. Thus, implementation of Verizon’s proposals
18 would not resolve the impairments identified by the FCC in the TRO. I have co-sponsored
19 separate testimony with Mr. Walsh which explains the operational impediments to the
20 scalability of Verizon’s hot cut processes to serve the mass market.

21 **Q. How is the rest of your testimony organized?**

22 A. The rest of my testimony consists of the following sections.

¹ Verizon Initial Panel Testimony, at 5.

² See TRO ¶ 423.

1 In Section III, I will summarize the sort of hot cut process that the TRO requires be
2 put in place before a state commission can find that CLECs are not impaired in their ability
3 to serve the mass market without access to switching on an unbundled basis. I will also
4 briefly explain the reasons for this requirement.

5 In Section IV, I will summarize the charges that Verizon seeks to impose through its
6 proposed hot cut rates.

7 In Section V, I will discuss the consequences of the facts presented in Section IV.
8 The chief consequence is that an efficient CLEC could not possibly survive as a competitor
9 serving mass market customers with its own switching together with unbundled Verizon
10 loops, *i.e.* using UNE-L, if forced to pay Verizon’s proposed charges for hot cuts.

11 Finally, I will offer some concluding observations regarding UNE-P as a proven
12 foundation of competition for serving the mass market, and the implications for what would
13 be required to enable facilities-based competition for mass market customers in Rhode
14 Island.

15 **III. THE NEED FOR SEAMLESS, LOW COST HOT CUTS IN THE MASS MARKET**

16 **Q. What do you mean when you refer to “mass market” customers.**

17 A. I mean what the FCC meant in the TRO, where it defined the “mass market” as “residential
18 customers and very small business customers.”³ AT&T serves both mass market customer
19 segments in Rhode Island using UNE-P for residential customers and a combination of
20 UNE-P and, in limited cases, UNE-L for small business customers. AT&T’s data show that

21 **<Begin Proprietary> XX**

³ TRO, ¶¶ 127, 459; *see also* TRO, fn. 1402. (“Mass market customers are residential and very small business customers – customers that do not, unlike, larger businesses, require high-bandwidth connectivity at DS1 capacity and above.”).

1 XXX

2 XXXXX. <End Proprietary>

3 **Q. What does the TRO require of hot cut processes for the mass market?**

4 A. The TRO directs state commissions “within nine months of the effective date of this Order,
5 to approve and implement a batch cut migration process — a *seamless, low-cost* process for
6 transferring large volumes of mass market customers.”⁴

7 **Q. Why?**

8 A. The FCC found on a national basis that CLECs would be impaired in their ability to
9 compete for mass market customers without access to unbundled local circuit switching for
10 such customers.⁵ The FCC found that a significant cause of this impairment is the fact that
11 existing hot cut processes are too inefficient and costly to provide a commercially viable
12 method of interconnection, given the “significant amount of churn, or movement,” and the
13 “low margins” that characterize the mass market.⁶ In the FCC’s words:

14 [H]ot cuts . . . are often priced at rates that prohibit facilities-based
15 competition for the mass market.... [F]or the incumbent, connecting or
16 disconnecting a customer is generally merely a matter of a software change.
17 In contrast, a competitive carrier must overcome the economic and
18 operational barriers associated with manual hot cuts.⁷

19 The FCC recognized that the very high cost of hot cuts in and of itself impairs CLECs’
20 ability to compete without access to unbundled switching and UNE-P. If a hot cut process is
21 not “low cost,” then the costs of such customer transfers, together with the other costs that

⁴ TRO, ¶ 423 (emphasis added). The TRO removes this obligation to the extent that a state commission issues “detailed findings that a batch cut process is unnecessary in a particular market because incumbent LEC hot cut processes do not give rise to impairment in that market.” TRO, ¶ 423. Verizon claims to show that this exception applies in Rhode Island and that it is therefore not “required” to propose a batch hot cut process. Verizon Initial Panel Testimony, at 41-42. Verizon’s Testimony does not, however, address hot cut costs and the obstacle they pose to CLECs’ abilities to compete for mass market customers. At least for this reason, Verizon’s Testimony fails to show that a “seamless, low-cost” batch hot cut process is not needed in Rhode Island.

⁵ TRO, ¶ 459.

⁶ See TRO, ¶¶ 471, 474.

⁷ *Id.*, ¶ 465.

CLECs alone face make it uneconomic for CLECs to serve mass market customers without UNE-P. Again in the FCC’s words:

[T]he cost of connecting each customer to the competitive LEC’s switch makes it difficult to compete. Although hot cut costs vary among incumbent LECs [“ILECs”], we find on a national level that *these costs contribute to a significant barrier to entry*...⁸

Citing specifically to the non-recurring “promotional rate of \$35 per hot cut”⁹ in New York as evidence of a commercially uneconomic rate causing impairment, the FCC found that “the record evidence indicates that the non-recurring costs” — including both those assessed by ILECs and those that CLECs must bear — “associated with cutting over large volumes of loops would likely be prohibitively expensive for a competing carrier seeking to provide service without the use of unbundled local circuit switching.”¹⁰

Furthermore, the FCC found that the frequency with which mass market customers switch service providers, i.e., the “churn” in the mass market, “exacerbates the operational and economic barriers to serving mass market customers” because “high churn rates ... often deprive competitive carriers [of] the full opportunity to recover” outlays for establishing new service.¹¹ Indeed, the FCC found that the record:

demonstrates that the current level of churn for carriers providing service to the mass market has significant negative revenue effects on the ability of competitive carriers to recover the high costs associated with manual hot cuts.¹²

Because of these evidentiary findings, the TRO directs state commissions to approve and implement “seamless, low-cost” batch hot cut processes. Without such processes, CLECs cannot use a UNE-L strategy to compete against Verizon in the mass market.

⁸ *Id.*, ¶ 470 (emphasis added).

⁹ This rate is due to expire on February 29, 2004.

¹⁰ *Id.* and n. 1448.

¹¹ *Id.*, ¶ 471.

¹² *Id.*

1 **Q. How does the mass market differ from the enterprise market?**

2 A. Most obviously it differs by customer type. The enterprise market is made up entirely of
3 businesses. The FCC has defined the “mass market” as consisting of residential consumers
4 and “very small businesses,” but the overwhelming bulk of those customers is comprised of
5 residential lines. As I have noted above, AT&T’s data show that more than 90% of the
6 “residence and very small business” market consists of residential customers.

7 **Q. How does AT&T serve these customers in Rhode Island?**

8 A. AT&T recently begun to serve both segments of the mass market in Rhode Island. In
9 general, AT&F uses only UNE-P for residential lines and a combination of UNE-P and, to a
10 very limited extent, UNE-L for some small business lines. AT&T serves new small
11 business customers using UNE-P because AT&T’s experience with hot cuts demonstrated
12 that the Verizon hot cut process is expensive, unacceptably slow, inefficient and unreliable
13 to use as a method for acquiring such customers. The hot cut process that Verizon has in
14 place in Rhode Island is identical to the process with which AT&T has extensive experience
15 with Verizon in New York and, to a more limited extent, in Massachusetts and other
16 Verizon states. Where AT&T has in place existing spare switching and other necessary
17 capacity, including sufficient existing capacity in the digital loop carrier infrastructure
18 needed to convert mass market customers’ analog signals to digital signals for transport to
19 an AT&T switch, all located within reach of a small business customer already being served
20 on UNE-P, AT&T will attempt to migrate that small business customer from the Verizon
21 switch to an AT&T switch if the migration process and economic conditions make it
22 feasible to do so. But where AT&T has no footprint or no spare, embedded capacity
23 available, AT&T continues to serve mass market customers exclusively on UNE-P. Thus,
24 while it is possible to serve a limited number of mass market customer lines on AT&T’s

1 existing facilities in this manner, economic and scale considerations do not permit the same
2 to be done for the vast majority of such customers. AT&T serves residential customers only
3 using UNE-P.

4 **Q. What does AT&T's experience tell you about the economics of serving mass market**
5 **customers?**

6 A. Success in the telecommunications mass market relies on the ability to serve very large
7 numbers of customers, each of whom produces only a very small monthly profit. As a
8 result, survival as a local exchange competitor in the mass market requires keeping
9 operational expenses to an absolute minimum. This is particularly true for up-front,
10 customer-acquisition costs, costs that cannot be recouped if the customer "churns" away in a
11 relatively brief time. Thus, even if it were possible to attain sufficient scale to minimize the
12 costs of installing the necessary additional facilities (including collocation space and power,
13 DLC equipment at the ILEC central office, backhaul transport to the CLEC switch and
14 CLEC switching), a CLEC still cannot serve mass market customers through a UNE-L
15 arrangement if it must pay large hot cut charges merely to initiate service to the customer.

16 **Q. Focusing for the moment on hot cut rates and other customer acquisition costs, why is**
17 **it particularly important to keep such costs under control?**

18 A. Customer acquisition costs are those incurred before or just at the time a firm acquires a
19 customer. Hence, the firm must incur such costs before the customer generates any
20 revenues that can be used to recover those costs. A firm must measure its customer-
21 acquisition costs against the projected revenues it will receive from the customer over the
22 time period the customer can be expected to remain its customer. If the costs are high, then
23 the required cost-recovery period is necessarily long. And if the customer drops the
24 competitor's service before these costs are recovered, the company will neither recover its

1 acquisition costs nor any of its fixed costs, and it will lose money serving the customer.

2 Firms that lose money serving large numbers of customers go out of business.

3 **Q. Could a competitive firm recover its customer acquisition costs as they are incurred, in**
4 **a one-time service initiation fee charge?**

5 A. No. In a competitive market, competitors set their prices on the basis of market rates. If
6 other carriers do not impose such up-front charges, AT&T cannot do so. This is particularly
7 relevant here for two reasons. First, for the most part AT&T is competing with Verizon to
8 serve a well established existing base of customers, and not for new customers that have no
9 existing service. We are attempting to persuade customers to migrate their service from
10 Verizon to AT&T. If we impose a large up-front service charge, customers can avoid
11 paying it simply by staying with Verizon because Verizon, of course, imposes no such
12 special charges on customers for simply continuing their existing Verizon service.

13 Second, as the FCC found and as this Commission is well aware, ILECs do not incur
14 the same hot cut costs that CLECs are required to pay, even for new customers. The FCC
15 correctly noted that “for the incumbent, connecting or disconnecting a customer is generally
16 merely a matter of a software change.”¹³ As a result, Verizon does not have to charge
17 customers a high service initiation fee (especially where, as is most often the case, service
18 initiation does not require a dispatch). If AT&T attempts to charge the customer a service
19 initiation fee while competitors — particularly the dominant firm, Verizon — do not, AT&T
20 will not acquire the account.

¹³ *TRO*, ¶ 465 (emphasis added).

1 **IV. DOLLAR IMPACT OF VERIZON’S PROPOSED HOT CUT CHARGES ON A PER LINE BASIS.**

2 **Q. What are the different categories of hot cut charges that CLECs would incur under**
3 **Verizon’s proposal in this proceeding?**

4 A. Verizon does not propose to charge CLECs a single rate for hot cuts, but rather a variety of
5 rates that apply in different circumstances. It has proposed one set of hot cut charges for
6 what it calls a “large project” process, a second set of charges for what it calls a “batch”
7 process, and a third set of charges for what it calls a “basic” hot cut. For each of these
8 different kinds of hot cut processes, Verizon proposes many separate charges for different
9 steps of the process, and proposes that some of those separate charges would be higher for
10 an “initial” line on a particular Local Service Request (“LSR”) and somewhat lower for each
11 “additional” line on a single LSR.

12 Verizon also proposes special charges that would apply for hot cuts involving
13 customers that are currently being served on IDLC-fed loops which Verizon proposes to
14 require be handled as “basic” hot cuts. There are no similar cost differentials, and no
15 difference in customer migration charges, for serving customers with IDLC-fed loops using
16 UNE-P.

17 In understanding Verizon’s proposed overall rate structure for hot cuts, it is
18 important to note what Verizon means by “initial line” and “additional lines.” As Verizon
19 uses the term “additional line,” it refers *only* to additional lines serving a *single customer*,
20 *not* additional lines from multiple customers that are included as part of a single batch or
21 large project order. That is, “additional lines” come into play only when an individual
22 customer that is being migrated to UNE-L service has more than one line. Thus, for
23 example, if AT&T submitted a “batch cut” order for 100 individual residential customers
24 each of whom had a single line, Verizon would assess each line the full “initial line” charge

1 of \$73.77.¹⁴. Since residential customers average only about <BEGIN PROPRIETARY>
2 XXX <END PROPRIETARY> lines per customer, the lower “additional line” rate seldom
3 comes into play.

4 **Q. Under Verizon’s proposed rates, what would CLECs wishing to use the “large job”**
5 **process have to pay for hot cuts in Rhode Island?**

6 A. Taking into account all of the customer and line types that CLECs serve in the mass market,
7 CLECs wishing to use the large job process would pay on average \$121.48 per hot cut, if
8 Verizon’s proposals were adopted.

9 **Q. Can you explain how you derived this rate?**

10 Yes. The derivation of this figure is set forth in Attachment E to the panel testimony of
11 Michael Hou, Brenda Kahn and Richard Walsh filed on behalf of AT&T. Under Verizon’s
12 proposal, CLECs may use the “large job” process to cutover any analog voice grade loops,
13 but would have to pay extra charges and use the “basic” hot cut process to cutover any
14 Verizon customers being served on IDLC-fed loops. The average of \$121.48 per hot cut
15 reflects the current average number of lines per LSR (in order to account for the higher
16 charges proposed by Verizon for each “initial” loop) and reflects Verizon’s data regarding
17 the share of total lines that are currently served by IDLC in Rhode Island.

18 **Q. If CLECs were forced to use the “batch” process proposed by Verizon, what would**
19 **they have to pay for hot cuts in Rhode Island?**

20 A. On average, CLECs would pay \$101.46 per hot cut using the batch process that Verizon has
21 proposed. The derivation of this figure is set forth in the same Attachment E. It also takes
22 into account the higher charges proposed by Verizon for “initial” lines and for lines served
23 on IDLC.

¹⁴ See Ex. III-A to Verizon’s Initial Panel Testimony.

1 Although this figure is a bit lower, it is obviously far from commercially reasonable,
2 even for the limited hot cut activities occurring today. Moreover, the batch hot cut process
3 proposed by Verizon suffers from many operational flaws that are described in the panel
4 testimony of witnesses Hou, Kahn and Walsh. These flaws effectively preclude its
5 commercial use at *any* price. Hence, the effective rate that CLECs would have to pay under
6 Verizon’s proposals is the “large job” hot cut rate of \$121.48.

7 **Q. Are there any other non-recurring charges that Verizon may assess CLECs?**

8 A. Apparently, yes. The batch hot cut process contemplates that a customer will be placed on
9 UNE-P as a holding mechanism until a batch hot cut can be scheduled. It appears that
10 Verizon also intends to charge CLECs first for migrating a customer to UNE-P, then for
11 recurring UNE-P rates on a prorated basis until the customer is migrated, and then finally for
12 the hot cut for all new customers. As shown in the same Attachment E, taking into account
13 these interim UNE-P charges across all customer and line types that CLECs serve in the
14 mass market, the total upfront charges by Verizon for a CLEC to begin service to a new
15 UNE-L customer where it must first use “rolling UNE-P” to an average of at least
16 \$118.87 per hot cut using the batch process. This assumes that on average Verizon would
17 cutover such newly acquired customers in 15 business days.

18 Moreover, Verizon’s testimony refers to such an arrangement as an “interim UNE-P-
19 like service” that it will “initially” price at current UNE-P rates.¹⁵ It appears, therefore, that
20 Verizon reserves the right to propose a rate for this part of the process that is higher than the
21 current customer conversion rate for UNE-P.

22 Furthermore, Verizon may seek to impose not merely higher but additional charges
23 on CLECs in the future for the processes described in its proposal. For example, Verizon

1 has specifically reserved “its right to recover, through a future filing, any costs associated
2 with the implementation of OSS support for the batch process that are not recovered in
3 existing rates.”¹⁶ Thus, unless it is precluded from doing so, it is reasonable to expect that
4 Verizon will seek even higher rates.

5 **V. WHY THE HOT CUT CHARGES PROPOSED BY VERIZON-RHODE ISLAND ARE NOT**
6 **ECONOMICALLY VIABLE.**

7 **Q. The FCC directed states to help develop “seamless, low cost” migration processes that**
8 **could be used to serve the mass market. By way of comparison, what non-recurring**
9 **charges does Verizon assess in Rhode Island to begin serving a retail customer using**
10 **UNE-P?**

11 A. If an existing Verizon retail customer with one line seeks to migrate its service to a CLEC
12 using UNE-P, (or if a new customer moves into a previously wired location) Verizon
13 charges \$2.41 for that customer migration.¹⁷

14 Thus, the proposals that Verizon has offered to meet the FCC’s requirements for a
15 “seamless, low cost process for transferring large volumes of mass market customers” are
16 approximately 50 times as expensive as UNE-P. To put the point another way, Verizon’s
17 proposals for permitting CLECs to add new mass market customers (with a “rolling” use of
18 UNE-P, followed by a cutover to UNE-L using the batch process) would add roughly \$115
19 per line to the cost of serving mass market customers compared to the non-recurring charge
20 for migrating service to a UNE-P arrangement.

21 **Q. Could an efficient CLEC survive economically if it tried to provide service to mass**
22 **market customers in Rhode Island using UNE-L at the hot cut rates proposed by**
23 **Verizon?**

24 A. Absolutely not. The hot cut charges proposed by Verizon in this proceeding are
25 economically untenable, not merely for the embedded base of residential and small business

¹⁵ Verizon Initial Panel Testimony at 37-38.

¹⁶ Verizon Initial Panel Testimony, at 47.

1 customers currently served on UNE-P, but for any UNE-L business. They would destroy
2 competition for the residential and small business market completely.

3 **Q. Please explain.**

4 A. No CLEC can offer local exchange service to mass market customers unless it can expect to
5 make a reasonable profit, or return on investment, in doing so. This is what economic
6 impairment means. Even if all other economic and operational hurdles to providing mass
7 market service without using UNE-P could be overcome, the high hot cut rates proposed by
8 Verizon alone would make it uneconomic to serve mass market customers with UNE-L.

9 Using the technology and processes currently available for providing local exchange
10 service, it is a very expensive proposition for an efficient CLEC to offer service to mass
11 market customers using UNE-L even aside from the cost of hot cuts. In very general terms,
12 the CLEC must: (i) lease unbundled loops from Verizon; (ii) install its own switch;
13 (iii) obtain collocation space in every Verizon central office through which it wishes to offer
14 service; (iv) install expensive Digital Loop Carrier (“DLC”) and multiplexing equipment in
15 the collocation space; (v) pay Verizon high monthly charges to power that equipment; and
16 (vi) install or obtain backhaul transport to connect its collocated DLC equipment to the
17 CLEC’s switch.

18 **Q. Doesn’t Verizon face the same costs when it competes to serve customers?**

19 A. No. Verizon’s network architecture was established in a monopoly environment by placing
20 its local switches at points where large numbers of local loops could be “homed.” Its switch
21 is in each central office. The ILEC’s forward looking costs of connecting its customer lines
22 to its switches are less than a dollar per line. In contrast, the CLEC must locate its switch at
23 locations remote from where the Verizon-constructed loops are directed. Because copper

17 See Attachment E to AT&T and Broadview’s Panel Testimony.

1 loop signals degrade over distance, CLECs must incur significant costs to convert the analog
2 signal to digital and then to backhaul that signal to its remote switch. This alone gives the
3 ILEC an enormous cost advantage over the ILEC.

4 Moreover, this problem is severely increased by problems of scale. Verizon, as the
5 historic service provider, has an enormous base of embedded customers, acquired in a
6 monopoly environment. Its switch locations were designed so that switches placed in each
7 office would have high enough usage rates to generate revenues adequate to pay for the
8 switch.

9 The CLEC's position is very different. It starts with few or no customers. And,
10 while it is free to compete for customers in every central office where it collocates, its likely
11 market share will be relatively small. As a result, it must incur collocation and backhaul
12 costs at multiple locations merely to acquire the same number of customers and amounts of
13 revenues to support its switch, that Verizon recovers at a single location.

14 **Q. Can you demonstrate the economic consequences of the scale dilemma?**

15 A. Yes. Assume Verizon has a central office serving 40,000 voice-grade lines, and a switch in
16 that office capable of handling all of the traffic generated by those lines.¹⁸ If Verizon
17 maintains an 80% market share in this office – which would be pretty typical after several
18 years of UNE-P competition – it would have the usage, and revenues, from 32,000
19 customers helping it pay for that switch.

20 Now assume a CLEC wanted to compete on a comparable scale. It would collocate
21 in that central office. But even assuming it was a very large CLEC and won *half* of all the
22 customers in a central office not served by Verizon, it would still have only a 10% market

¹⁸ When viewing a CLEC's opportunities to win mass market customers at an ILEC central office, it is necessary to view accessible mass market lines separately from enterprise lines.

1 share. To serve these customers, the CLEC would need to construct, maintain and pay for
2 all of the collocation equipment described above. But when it had completed that
3 investment, it would achieve the business and revenues from only 4,000 customers. To
4 achieve the same scale and revenue economies that Verizon gets from each central office
5 where it has a switch, the CLEC would need to incur collocation and back haul costs from
6 about 8 separate central offices.

7 As the FCC has noted, the profit available from mass market customers is very
8 small. Adding these collocation and backhaul costs to the other costs that CLECs must
9 incur to serve the mass market, itself makes mass market competition untenable. There is
10 certainly no room for additional cost increases such as the extremely high hot cut charges
11 now proposed by Verizon.

12 **Q. Could you elaborate?**

13 A. Yes. I will focus first on the embedded customer base being served by CLECs in Rhode
14 Island using UNE-P, since for AT&T the impact of Verizon's proposal will be felt most
15 immediately here.

16 Under Verizon's large job or project hot cut process CLECs would have to pay
17 Verizon an average of \$121.48 per line in hot cut charges, based on Verizon's proposed
18 charges. A CLEC could afford to make such payments only if it could generate sufficient
19 revenues from its customers to recover that up front expenditure. But CLECs could in no
20 way expect to recover such revenue.

21 A CLEC could not simply pass through this sudden cost imposition to its existing
22 customers in the form of a rate increase. These customers were attracted to the CLEC by a
23 specific rate package. They will neither understand nor accept such a sudden \$121
24 surcharge, especially when nothing about their service, from their perspective, will change.

1 Hence, a CLEC could recover the additional Verizon charge, if at all, only out of its current
2 profits from customers in its embedded base whom it is serving at current rates.

3 **Q. Can you calculate the amount per line and per month that the CLEC would need to**
4 **recover the hot cut costs that Verizon proposes?**

5 A. Yes. Up front non-recurring costs are normally analyzed as spread over the “life” of the
6 customer. In the current, hotly competitive commercial environment, churn rates are very
7 high. A fair estimate is that a CLEC loses about 4.6% of its customers each month. This
8 gives a CLEC an average service period of about 22 months from initiation to termination of
9 service. However, these figures do not apply where, as here, a new charge is to be imposed
10 on a CLEC in order for it to continue to serve its *existing* customers. Some of these
11 customers will be new, but others will be old customers, some of whom will leave shortly
12 for any of the various reasons why customers terminate service. On average, -- and ignoring
13 the very high likelihood that some significant number of customers would leave the CLEC
14 because of the hot cut process -- a CLEC can expect to see about half the service life for
15 these customers as it would see from a new customer, which means about 11 months.
16 Hence, in order to recover *only* the hot cut costs that Verizon proposes, CLECs would have
17 to eat into their per line revenues by an average of \$11.04 per line per month, *merely to*
18 *recover the cost of the hot cut.*

19 **Q. Could a CLEC serving the mass market absorb an additional cost of eleven dollars per**
20 **month and still serve its customers without a loss?**

21 A. Not given the current or projected future margins in the mass market.

22 **Q. Could you elaborate on this conclusion?**

23 A. Yes. Given both the FCC’s finding that profit margins in the mass market are very low, and
24 this Commission’s substantial experience in this industry, it is patently obvious that no
25 CLEC could afford to incur a \$11 per month increase in its costs just for the hot cut and not

1 including any incremental external collocation and backhaul costs and internal DLC
2 equipment and network costs, with no opportunity to recover those costs in the market, and
3 still survive.

4 No CLEC can continue to serve its existing mass market customer base if it must
5 incur both the costs of constructing a switching and backhaul network to accommodate the
6 demand and pay Verizon an additional \$11 per line merely to transfer the customer's service
7 from the Verizon to the CLEC switch.

8 **Q. What would be the consequences of these customer conversion charges for competition**
9 **in the mass market going forward?**

10 A. As noted above, Verizon's proposals would add about \$115 (using the Batch process, i.e.,
11 cheapest alternative, with rolling UNE-P) in charges that a CLEC would have to pay to
12 Verizon to acquire a new mass market customer. AT&T could not pay these kind of
13 customer acquisition costs and compete in the mass market. Assuming that on average a
14 CLEC retains each customer for 22 months, AT&T would have to charge each customer an
15 extra \$5.22 per month solely to cover these costs. Verizon would have an insurmountable
16 competitive advantage solely because it would not incur these costs.

17 **Q. Would this be true only for AT&T?**

18 A. Obviously not. MCI WorldCom and Z-Tel have already expressed the same views to the
19 FCC.¹⁹ The economics are so egregious given Verizon's proposed rates that no firm could
20 compete in the mass market. Simply put, no carrier can compete for the mass market using
21 UNE-L at such rates, even for new customers with a full, prospective service life.

¹⁹ See TRO ¶ 523 and footnotes 1603 and 1604.

1 **VI. WHAT WOULD BE A MODEL FOR EFFICIENTLY MIGRATING CUSTOMERS IN A**
2 **COMPETITIVE MARKET.**

3 **Q. Is there a model for efficiently migrating customers in a competitive market – using a**
4 **seamless, low-cost process – against which Verizon’s hot cut proposal can be**
5 **measured?**

6 A. Yes there is. It is UNE-P.

7 **Q. Please explain.**

8 A. UNE-P is the only system for migrating customers among multiple competitive carriers,
9 including the ILEC, that has ever been demonstrated to work on a mass market basis. It
10 enables carriers to implement thousands of customer carrier change orders per month
11 efficiently, reliably and at a cost that does not foreclose mass market competition. It works
12 for all types of customers, for all types of customer lines, and even for all types of
13 competing carriers. UNE-P rates, including the non-recurring charges for customer
14 migrations, are the only rates that have been demonstrated to permit effective and sustained
15 competition.

16 **Q. Is mass market competition possible if customer migration charges are set at this level?**

17 A. Demonstrably, yes, so long as UNE-P is available. UNE-P based competition has begun to
18 grow strongly for all customer segments. AT&T, for example, serves residential and small
19 business customers throughout the entire Verizon footprint using UNE-P, as do several other
20 carriers. AT&T serves residential as well as small business customers, and offers and
21 routinely sells service to the low-revenue end of the residential service market, including to
22 lifeline customers.

23 **Q. What would happen if, hypothetically, UNE-P were not available?**

24 A. Under current technology, especially as Verizon proposes to apply it to accommodate
25 CLECs seeking to compete using their own switches, mass market competition --
26 competition for the residential and very small business market – is not sustainable without

1 UNE-P. The problems with collocation and back haul costs using current technology create
2 both economic and operational impairment problems that are simply insurmountable,
3 especially for the residential portion of the mass market – the portion that makes up more
4 than 90% of the total mass market.

5 **Q. Do you have any proof of this?**

6 A. Yes, the best proof is in the marketplace. As the evidence in the current trigger investigation
7 demonstrates, there is essentially no competition for the residential part of the mass market
8 today based on UNE-L. AT&T is a principal example of this. Even where AT&T has
9 capacity on its existing switches, AT&T does not serve residential customers using UNE-L
10 because the higher churn rates, lower margins, and vast differences in scale make
11 competition on this basis uneconomic and non-viable.²⁰ The FCC's national finding of
12 economic and operational impairment applies throughout Rhode Island for the reasons that
13 the FCC identified: the costs and inefficiencies of hot cuts, collocation and backhaul, using
14 conventional technology, preclude effective competition with the incumbent monopolists
15 given their embedded facilities and established customer base.

16 **Q. Is there any reason to believe that this situation can change?**

17 Yes. New technology holds the promise that current proprietary circuit-switched network
18 can be modified to permit CLECs to receive unbundled loop signals from ILECs in an
19 efficient manner. Such network improvements could both improve the operational
20 performance of loop transfers and lower the associated costs, making it possible for local
21 exchange customers to switch among carriers with the same ease currently possible only
22 with respect to long distance service.

1 **Q. What is the TELRIC cost of an efficient bulk or large job hot cut process, using**
2 **current technology?**

3 A. The FCC Common Carrier Bureau has recently determined that the forward looking cost for
4 Verizon to provide hot cuts should not be more than about \$5 for a single hot cut, even using
5 current technology.²¹ More recently, the Pennsylvania PUC determined that a proper rate
6 for a hot cut is only \$1.44 per loop.²²

7 **Q. In the aggregate, what are the hot cut charges that Verizon seeks to impose upon**
8 **CLECs as a result of the new processes and rates it has proposed?**

9 A. In Rhode Island alone, if Verizon gets its way then -- based on Verizon's own assumptions
10 regarding the number of UNE-P arrangements that would have to be cut over to UNE-L, and
11 the number of new migrations of customers from Verizon to CLECs on UNE-L during the
12 proposed 27-month transition period -- CLECs would have to pay Verizon between **\$15 and**
13 **\$18 million** in hot cut charges to convert the small embedded UNE-P base and to bring on
14 new UNE-L customers using the batch and large job processes respectively. Over the first
15 ten years, it would cost CLECs between **\$71 and \$85 million** using the batch and large job
16 processes respectively

17 It is important to remember, however, that Verizon is seeking to impose exorbitant
18 rates for its large job process throughout its footprint. To date we have had occasion to

²⁰ The FCC has found that failure by CLECs to use existing switches to provide service to mass market customers is highly probative evidence that CLECs are impaired without access to unbundled ILEC switching. TRO, fns. 1365 and 1371.

²¹ See *In the Matter of Petition of WorldCom, Inc., Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Jurisdiction of the Virginia State Corporation Commission Regarding Interconnection Disputes with Verizon Virginia Inc., and for Expedited Arbitration*, CC Docket No. 00-218, and *In the Matter of Petition of AT&T Communications of Virginia, Inc. Pursuant to Section 252(e)(5) of the Communications Act for Preemption of the Virginia Corporation Commission Regarding Interconnection Disputes with Verizon Virginia, Inc.*, Federal Communications Commission, CC Docket No. 00-215, "Memorandum Opinion and Order" No. DA 04-181, Appendix, page 24 (rel. January 29, 2004). Available at: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-04-181A1.pdf. See also *Id.*, "Memorandum Opinion and Order" No. DA 03-2735 (rel. August 29, 2003) at ¶ 604 (August 29, 2003).

²² The final Pennsylvania hot cut rate is contained in a tariff filed by Verizon on January 27, 2004, in accord with the PUC's order dated December 11, 2003. See *Verizon Pennsylvania Inc.'s Tariff Pa. PUC No. 216, Section 3, Part C.1.a.* Available from Verizon at: <https://retailgateway.bdi.gte.com:1490/cyberdocs.asp?optState=PA>

1 review the financial implications of Verizon's very similar proposals in Massachusetts, New
2 York, New Jersey, and Maryland, in addition to Rhode Island. The cumulative total charges
3 that Verizon seeks to impose on CLECs in just these five states over the next ten years just
4 for hot cuts is approximately **\$3.1 Billion**.²³ Across the entire Verizon footprint, its
5 proposed approach to hot cuts would cost many billions of dollars more.

6 In all of these states, Verizon's volume assumptions are substantially understated, for
7 the reasons discussed in the accompanying testimony that I am co-sponsoring with Mr.
8 Walsh. For purposes of demonstrating the substantial economic impairments that would
9 result from Verizon's proposed hot cut rates, however, the Attachment E relies upon the
10 understated volume assumptions made by Verizon. As a result, these estimates of the
11 economic impact of Verizon's proposed hot cut rates are understated.

12 Nonetheless, even in their understated form these are staggering sums. Verizon's
13 proposals are pretty much the antithesis of the kind of seamless, low-cost cutover process
14 that the FCC has determined is needed to help overcome the operational and economic
15 impairments that are inherent in existing hot cut processes.

16 **Q. Thank you. I have no further questions for this witness at this time.**

²³ As demonstrated in testimony filed in these other states, Verizon's own assumptions indicate that it seeks to impose hot cut charges over the next ten years amounting to roughly \$1.5 Billion in New York, \$500 million in Massachusetts, \$500 million in New Jersey, and \$500 million in Maryland.